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GUNNISON FORKS

WILDLIFE HABITAT MANAGEMENT PLAN

CO-03-WHA-T2

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# WILDLIFE HABITAT MANAGEMENT PLAN COLORADO



BUREAU OF  
LAND MANAGEMENT



COLORADO  
DIVISION OF WILDLIFE



# United States Department of the Interior

IN REPLY REFER TO

6620

BUREAU OF LAND MANAGEMENT  
Colorado State Office  
2000 Arapahoe Street  
Denver, CO 80205

Mr. Jack A. Grieb, Director  
Colorado Division of Wildlife  
6060 Broadway  
Denver, CO 80216

AUG 19 1981

Dear Sir:

Enclosed for your signature is the formal cooperative agreement covering the Gunnison Forks (Allen Property) Habitat Management Plan (HMP) between our respective agencies.

This agreement fulfills, in part, the stipulations covered by the Memorandum of Agreement signed on March 29, 1979 by the Bureau of Reclamation and Bureau of Land Management.

Sincerely,

*Bob Moore*

For, George Francis  
State Director, Colorado  
Bureau of Land Management

Enclosure

COOPERATIVE AGREEMENT

AUG 15 1981

Between

U. S. Department of the Interior  
Bureau of Land Management  
Colorado State Office

and

The State of Colorado  
Department of Natural Resources  
Division of Wildlife  
Denver Headquarters

I. Purpose:

This agreement was necessitated under the terms of a 1979 Memorandum of Agreement between the Bureau of Reclamation and Bureau of Land Management. The agreement will provide for joint implementation and cooperative management of the 175 acres covered by the Gunnison Forks Habitat Management Plan (HMP). The subject lands (formerly the Allen property) are located at the confluence of the Gunnison River and North Fork of the Gunnison River in Delta County, Colorado. The HMP has been jointly written and approved by the Montrose District, Bureau of Land Management and the Southwest Regional Office, Colorado Division of Wildlife.

II. Cooperative Parties:

This agreement is between the Colorado Department of Natural Resources, Division of Wildlife, hereafter referred to as the Division, and the U. S. Department of Interior, Bureau of Land Management, Colorado State Office, hereafter referred to as the Bureau.

III. Authority:

Authority for this agreement is the master Memorandum of Understanding between the Division and the Bureau dated April 9, 1975 and signed by the Director, Colorado Division of Wildlife, and the State Director, Colorado, Bureau of Land Management.

IV. Agreement Items:

It is mutually agreed that:

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

CHECKLIST FOR PREPARATION AND REVIEW  
OF HABITAT MANAGEMENT PLANS

| HABITAT MANAGEMENT PLAN AREA NAME AND NUMBER  |  | SURNAME              | DATE                |
|---|--|----------------------|---------------------|
| 1. Cooperative Agreement completed  |  | <i>Targeman</i>      | <i>7 July 1981</i>  |
| 2. Preliminary meeting(s) with officials of the State Department of Fish and Game (or other appropriate cooperators) to discuss tentative HMP and wildlife objectives |  |                      |                     |
| 3. Endangered Species Act Compliance Report completed by  |  | <i>Targeman</i>      | <i>7 July 1981</i>  |
| 4. HMP draft prepared by  |  |                      |                     |
| 5. Reviewed by District Wildlife Specialist   |  | <i>Blythe</i>        | <i>20 July 1981</i> |
| 6. EAR on draft HMP prepared by   |  |                      |                     |
| 7. HMP redrafted based on adopted recommendations<br>(if appropriate, prepare second copy.)   |  |                      |                     |
| 8. Reviewed by District Specialists   |  |                      |                     |
| Range   |  | <i>John D. Jones</i> | <i>21 July '81</i>  |
| Wild Horse(s) and Burro(s)  |  | <i>John D. Jones</i> | <i>21 July '81</i>  |
| Lands   |  | <i>John D. Jones</i> | <i>7-29-81</i>      |
| Minerals  |  | <i>John D. Jones</i> |                     |
| Watershed   |  | <i>John D. Jones</i> | <i>7-20-81</i>      |
| Forestry  |  | <i>John D. Jones</i> | <i>7-20-81</i>      |
| Recreation  |  | <i>John D. Jones</i> | <i>7/21/81</i>      |
| Cultural  |  | <i>John D. Jones</i> | <i>7/21/81</i>      |
| Visual  |  | <i>John D. Jones</i> | <i>7/21/81</i>      |
| Fire Management   |  | <i>John D. Jones</i> | <i>7/23/81</i>      |
| Area Manager  |  | <i>John D. Jones</i> | <i>8/3/81</i>       |
| Support (Chief of Operations)   |  | <i>John D. Jones</i> | <i>7/23/81</i>      |
| 9. Review of draft by Chief, Resource Management  |  | <i>John D. Jones</i> | <i>7/30/81</i>      |
| 10. Final review (if appropriate) by State Director   |  |                      |                     |
| <input type="checkbox"/> State Office   |  |                      |                     |
| <input type="checkbox"/> Service Center   |  |                      |                     |
| <input type="checkbox"/> Other (specify)  |  |                      |                     |
| 11. Approved by State wildlife agency authorized officer<br>(if appropriate)  |  | <i>R. Targeman</i>   | <i>8/4/81</i>       |
| 12. Approved by District Manager  |  | <i>John D. Jones</i> | <i>8/4/81</i>       |
| 13. Approval of State Director (if appropriate)   |  |                      |                     |

GUNNISON FORKS  
HABITAT MANAGEMENT PLAN

A. INTRODUCTION

In 1978 the Bureau of Reclamation (now Water & Power Resources Service) purchased the 175 acres covered by this plan for the purpose of partially mitigating wildlife habitat losses caused by the construction of Blue Mesa Reservoir (Curecanti Project). In March of 1979, fee title for this land, known as the Allen Property, was transferred to the United States. The lands were to be managed in cooperation with the Colorado Division of Wildlife for the purpose of providing unrestricted public access to the confluence of the Gunnison River and the North Fork, and for intensive wildlife habitat management. The preparation of this HMP was also part of the agreement between these three agencies (see Appendix I for a copy of the Memorandum of Understanding). This HMP will function as an interim management plan until a more extensive plan can be completed for the North Fork. The future plan will cover a more logical ecological unit.

The maps on the following pages provide the reader with the relative and specific location of the HMP area. Photographs of the river confluence area, special wildlife features and the upland habitat areas are located in Appendix II.

The property essentially consists of two distinct habitat types. The riparian zone with a good stand of mature cottonwoods is the most productive portion of the property and the smallest of the habitat types. The cottonwoods which are used heavily by non-game birds, including wintering bald eagles, have suffered from some unauthorized cutting. Resprouts have been used heavily by trespass livestock. The riparian zone does constitute a portion of the Gunnison Gorge bald eagle heavy use area, but no roost tree has been identified. Appendix III shows bald eagle sightings (based upon a 1979-80 inventory, BLM 6840 file). Bald eagle use downstream of the confluence is also heavy.

River otters were initially released at the confluence in 1977 and they have established a stable population in the Gunnison Gorge. Otters may make occasional use of the riparian zone in this HMP area as well as some downstream areas. Most of the recreation activity on the HMP area occurs in this habitat type.

The upland habitat is a salt desert shrub community which receives very little recreation use even though it covers about 90 percent of the acreage covered by this plan. The chief habitat value of both areas is for non-game wildlife habitat. Big game use is minimal.

Appendix V contains a list of wildlife species that could occur on the property and those that have been confirmed on the property. The HMP area falls within big game management unit 63 and small game management unit 64. Appendix V also shows the fish planting record for the confluence.

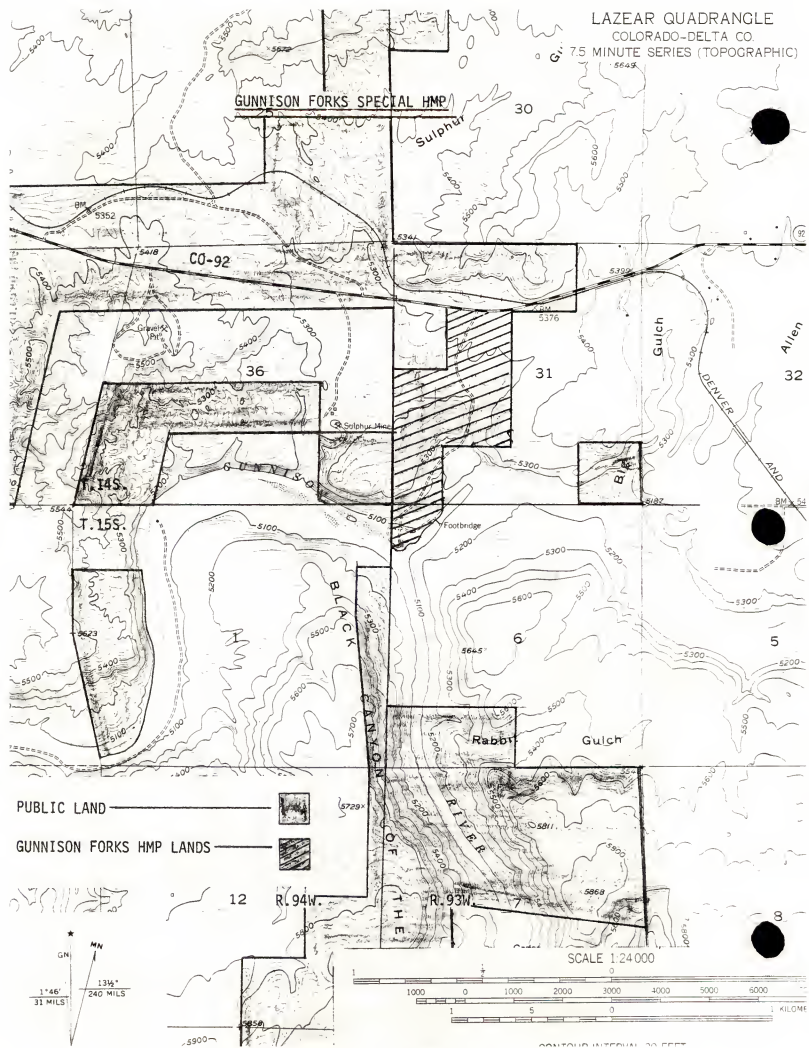


## LAZEAR QUADRANGLE

COLORADO-DELTA CO.

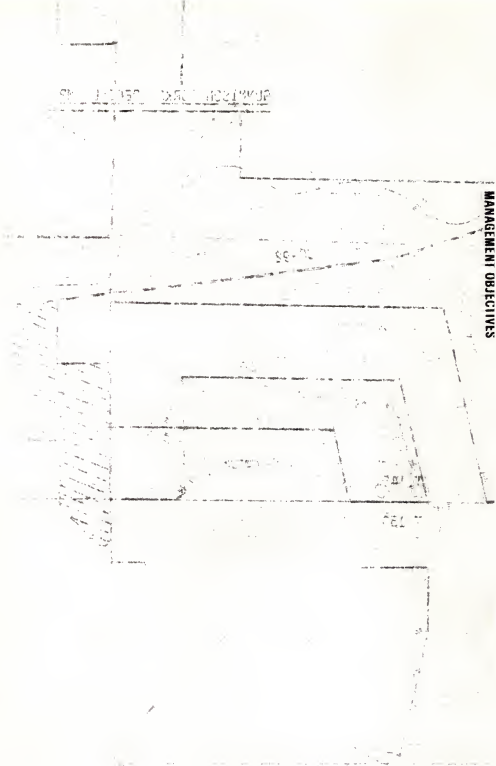
G. 7.5 MINUTE SERIES (TOPOGRAPHIC)

## GUNNISON FORKS SPECIAL HMP





2000-2001



2000-2001

2000-2001

2000-2001

Many of the habitat management problems in the HMP area are caused by intensive recreation activity which was, in part, the basis for acquisition of the tract. The activities, which include fishing, waterfowl hunting, river rafting and picnicking, have increased in intensity in the last few years. Future recreation planning hinges in part on Congressional action on the Gunnison Wild and Scenic River proposal. Designation of the river as wild and scenic would cause some modification in the recreation uses and management practices of the Gunnison Forks area. These changes should not have any major effects on wildlife habitat management.

#### B. MANAGEMENT OBJECTIVES

Since this land was in private ownership when the Gunnison Gorge MFP was completed, only the VRM class recommendations are applicable. They will not restrict any of the proposals of this activity plan.

Based upon the Colorado Division of Wildlife's original proposals for this property and the requirements of the title transfer, the following objectives have been derived.

1. Improve the river access road to permit safe all-weather use and reduced watershed damage.
2. Improve the upland and riparian habitat condition on 175 acres, by controlling livestock and recreation use. This would include fencing to prevent trespass livestock grazing, the closure of some of the unauthorized roads in the riparian zone, and the construction of parking areas to localize vehicle damage.

Fencing to control livestock use will allow some range improvement. This will provide the only ungrazed, unfarmed habitat area in the vicinity for exclusive use by wildlife.

Recreation control measures could include use restrictions if it becomes necessary to reduce disturbances to wintering bald eagles.

Closing up to 0.5 miles of excess roads in the riparian zone would allow vegetation to recover, resulting in habitat improvement and reduced erosion.

3. Inform the public about the Habitat Management Area and the river access road through the use of signs. Signs should also be installed to inform the public of the habitat needs and management goals being sought for river otters and wintering bald eagles.

4. Protect the habitat components of the tract which make it suitable wintering habitat for the endangered bald eagles by maintaining a minimum of 80 percent of the existing number of mature and seedling cottonwoods. Trees that die should not be removed, except where they constitute an obvious safety hazard. The expertise of the District forestry staff should be used to determine if the trees are a hazard.

C. CONSTRAINTS

The existing MFP does not address this specific tract since it was in private ownership when the MFP was written. With the exception of legal constraints, nearly any wildlife project could be proposed for this tract since intensive habitat management was part of the original purchase intent. Departure from the intended purpose of fish and wildlife habitat management will result in conveyance of the property title to the Division of Wildlife as per item 4 of the Memorandum of Agreement

D. PLANNED ACTIONS

1. Access Improvement

Grade the existing one mile of access road, install culverts where necessary and gravel the road to improve recreation access and reduce the erosion problems that are evident at this time. There have been several complaints by the public concerning the condition of this road, primarily relating to bad rutting and bumps. The adobe soils also become quite slippery when wet. A significant portion of the public using this area does so with passenger cars which have difficulty negotiating the road in its present condition. Though this planned action does not have any direct positive benefits for wildlife habitat, it does meet one of the objectives of the original acquisition of this tract, and the reduction of erosion is an indirect positive habitat improvement benefit. Yearly maintenance of the access road will probably be necessary.

There is one section of the access road which appears to cross private land. Prior to any major road upgrading, the questions regarding the legal status or easements for this road will be cleared up.

2. Boundary and Information Signs

At present, the access road from Highway 92 is not marked to inform the public that there is public access to the river. Placement of a sign for this purpose would be in keeping with the recreation access intent of the acquisition. Steps have already been taken to order this sign. See Appendix IV for the signs proposed for this area.

All signs proposed for this area will display the logos of the Bureau of Land Management and the Colorado Division of Wildlife. This is in keeping with the cooperative management term of the original Memorandum of Understanding (Appendix I).

Boundary signs should be placed to inform the public of the extent of the area. Boundary signs have already been acquired which indicate that this is a cooperative wildlife management area. Several of these have been placed along CO-92.

Signs are also needed near the heavy recreation use area to inform the public of the intent of the area and the goals of the managing agencies. Additional signs should also inform the public of the area's importance to wintering bald eagles, non-game birds and the river otters upstream in the Gunnison Gorge as well as downstream. The Division of Wildlife has signs in the area at the present time to inform trappers of the presence of the river otters.

### 3. Fencing

The entire tract should be fenced to prevent continued trespass sheep use, especially in the riparian zone. This property has never been allotted and continued livestock use on a regular basis does not conform to the intent of the tract acquisition. All of the adjacent lands are grazed as part of a federally-managed allotment or on a private basis. Removing or carefully controlling livestock grazing on this tract should permit some improvement in range conditions and add diversity to the larger habitat area which includes this property. A quantification of the expected improvements in vegetative composition and density is not germane to the success of this proposed action. The non-game animals that inhabit this area will benefit from priority use of the vegetative resources even if no changes occur. The major benefit will be from the added diversity in an ecosystem where the surrounding lands are either grazed or farmed.

Although no livestock grazing is proposed for the HMP area, it may be desirable to graze the area periodically at some time in the future. Such grazing, which could be permitted on a temporary, non-renewable license basis, would be jointly proposed by Bureau and DOW biologists for the purpose of initiating a vegetative change.

The proposed boundary fence for the north and west sides of this property is a standard three-strand barbed wire fence as shown in the Uncompahgre Basin Resource Area Grazing Environmental Statement. A sheep-tight fence is not proposed in an effort to hold costs to a minimum. The sheep herds in the adjacent allotments are herded. A properly signed three-strand fence should provide adequate livestock control. If trespass livestock become a problem, a fourth strand of wire could be added at a later date.

Note that the proposed boundary fence, as shown on the map in Appendix III, includes a small tract of land in the northwest corner that was not part of the original 175-acre acquisition. This tract of less than 40 acres is part of the Shamrock Pasture of the Alkali Flats Allotment, with an estimated carrying capacity of 2 AUMs. The reasons for fencing in this acreage include aesthetics (the fence line would be more pleasing as a straight line to the highway) and a slight reduction in construction costs by eliminating two corner posts.

The permittee, Hotchkiss Ranches, has signed a voluntary agreement relinquishing the 40 acres from their allotment.

In order to obtain complete control over trespass livestock use, some fencing will be required along the southeast corner unless the adjacent 40 is also acquired by the Water and Power Resources Service. If this 40 is acquired and turned over to the Bureau for management, it will be fenced in with the original Allen Property as shown by Boundary Fence #2 in Appendix III.

All fences are shown on a map in Appendix III. The total length of fence would be 2.05 miles.

#### 4. ORV Control

Although one of the purposes for the purchase of this tract was recreation use, ORV use in the riparian zone has caused habitat damage. Road closures, parking area construction and boat ramps are normally handled through a recreation management plan, but the recreation activity has no funding capability to write such a plan in the near future. For these reasons, the construction of one or more parking areas, restriction of vehicle access to two points on the river, and the closure of all other vehicle trails with barriers is proposed for 1982. Administrative ORV closures for the affected trails will also be completed by 1982.

This action may require the construction of 3/4-mile of pole fence and a parking area large enough to handle at least 20 vehicles.

#### 5. Recreation Use Control

If it becomes necessary, limit recreation use to control sanitation problems, riparian habitat destruction, excessive disturbance of wintering bald eagles, or resident river otters. A 1978 environmental assessment by the Colorado Division of Wildlife contained a similar proposal.

At the present time, there is insufficient data to support a day-use-restriction or seasonal closure. If problems become evident in the future as a result of a continued increase in recreation use, one of these restrictive measures may have to be employed. Bald eagle and recreation use of the area will continue to be informally monitored by Bureau and Colorado DOW personnel.

## 6. Bald Eagle Habitat Protection

The habitat component found on this tract which appears to be of greatest direct benefit to the wintering bald eagle population is the mature cottonwood grove located in the riparian zone. These trees must be protected and any that are cut down or lost due to natural causes should be replaced by young trees. Study plots will be established and monitored at a minimum of once every three years. Dead trees should be permitted to stand to serve as roost sites.

If no cottonwood regeneration is evident after 2 study cycles, then some cottonwood planting should be done to insure the long-term health of the stand.

## COORDINATION WITH OTHER PROGRAMS AND AGENCIES

### 1. Timber Management

Timber resources on the HMP tract are limited to the cottonwood trees in the riparian zone. The timber management program has no intention of proposing harvest of these trees. The preservation of these trees is consistent with the habitat management objectives of this plan.

### 2. Livestock Management

The HMP area has never been allotted. The adjacent allotments (Sulphur Gulch and the Shamrock Pasture of the Alkali Flats Allotment) have been rated in poor range condition and the apparent condition of the Allen Property is also poor.

### 3. Recreation Management

This area has historically been used for public access to the Gunnison Forks for fishing, hunting and river raft access. There has been a marked increase in recreation use within the last two years, but no figures are available to quantify this increase. The outlook for the future is for a continued increase in fisherman days due to improving fishery values downstream. Cold water releases from the Curecanti Units have improved water quality downstream of the confluence.

At the present time, the recreation activity has no development plans for this area. Future recreation management

actions will depend heavily on the Gunnison Wild and Scenic River designation proposal, which would be followed by a River Management Plan. Recreation activity plans must be consistent with the wildlife habitat values of the HMP area.

The visual resource management classifications are Class II in the riparian zone and Class IV in the upland zone.

No cultural resource sites have been identified on the HMP area. No inventories of the area have been completed.

#### 4. Watershed Management and Water Quality

The vegetative types on this tract are saltbush, riparian and annuals on some disturbed sites. Although the range condition rating in 1975 was poor, the area rated was in a slight erosion class. There are three general soil types within the HMP area: Torriorthents-Rock Outcrop Association in the riparian zone, and the Mesa-Orchard Association and Chipeta-Persayo Badlands in the upland zones. More specific soil information is available at the Montrose BLM District Office. ORV control, livestock removal and access road improvements would reduce soil erosion by an unquantifiable amount.

Fee title to this property conveyed all water rights to the U.S. Government, but there are no waters originating on the property.

Water quality in the Gunnison River is excellent, but the Colorado Department of Health has shown the quality of the water in the North Fork (below Somerset) to be degraded somewhat due to mine effluent, irrigation return flow and natural causes. Total dissolved solids in the North Fork are probably high enough to inhibit fisheries values. Water quality immediately downstream of the confluence is very good due to the large quantity of high-quality water contributed by the Gunnison River.

#### 5. Minerals

There has not been any significant minerals activity on this property or on nearby lands in recent years. Based upon the known mineral resources on the property, there should be no drastic change from past patterns in the near future.

Fee title to the Allen Property included: "An undivided one-half ( $\frac{1}{2}$ ) interest in all oil, gas and mineral rights with the right to enter said lands for the purpose of mining same and removing same". Due to this provision, the Bureau does not have control over the extraction of oil, gas and minerals on this property. It may become necessary in the future to attempt purchase of the remaining mineral rights in order to protect the wildlife and recreation values of this property.



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

HABITAT MANAGEMENT PLAN PROGRESS REPORT

| OBJECTIVES                              | DATE COMPLETED | PLANNED ACTIONS  | DATE COMPLETED | EVALUATIONS   | DATE COMPLETED |
|---|----------------|--|----------------|---|----------------|
| 1. Improve Gunnison River Access        |                | <p>a. Perform routine maintenance on 1.2 mi. of access road.</p> <p>b. Major upgrading of 1.2 mi. of access road.</p> <p>c. Place access signs on Highway 92.</p>  |                | <p>Elimination of rutting to improve vehicle access.</p> <p>Stabilize the roadbed and control water flows to reduce erosion.</p>                                    |                |
| 2. Protect wintering bald eagle habitat |                | <p>a. Maintain a minimum of 80% of the existing number of mature and seedling cottonwoods.</p> <p>b. Plant cottonwood saplings if number of trees falls below 80% of current level.</p> <p>c. Livestock and ORV control measures will also protect this habitat component.</p> |                | <p>Establish a stand count either with aerial photographs or surface studies.</p> <p>Fence and cattleguard effectiveness will be monitored by Bureau personnel.</p> |                |

INSTRUCTIONS

1. List specific objectives as developed in MFP or as otherwise approved.
2. List specific planned actions to be initiated to meet each specific objective.
3. List scheduled studies and evaluations planned in evaluating accomplishments.
4. Enter date that each objective, action, or evaluation is accomplished.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

HABITAT MANAGEMENT PLAN PROGRESS REPORT

| OBJECTIVES                             | DATE COMPLETED | PLANNED ACTIONS  | DATE COMPLETED | EVALUATIONS   | DATE COMPLETED |
|--|----------------|--|----------------|---|----------------|
| 3. Improve upland and riparian habitat |                | Place a temporary fence and cattleguard to protect the riparian zone.<br><br>Interpretive sign in the riparian zone.<br><br>ORV control in the riparian zone.<br><br>Fence the entire management area to control livestock use.<br><br>Recreation restrictions to control excessive habitat degradation only if necessary. | 4/1/81         | Pre and post treatment vegetative studies to monitor changes.<br><br>Vehicle barriers and parking area will be checked to determine effectiveness.<br><br>Informal monitoring of recreation/wildlife conflicts. |                |
| 4. Public information                  |                | Access signs<br>Boundary signs<br>Interpretive sign  |                |   |                |

INSTRUCTIONS

1. List specific objectives as developed in MFP or as otherwise approved.
2. List specific planned actions to be initiated to meet each specific objective.
3. List scheduled studies and evaluations planned in evaluating accomplishments.
4. Enter date that each objective, action, or evaluation is accomplished.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

ACTIVITY 4350

# EA FACE SHEET

OFFICE: Montrose District Office FY & REPORT # CO-030-81-109

ACTION: Gunnison Forks Habitat Mgmt. Plan NO. OF PAGES             
(Project Name, Case Type, etc.)

LOCATION: T 14 S., R. 93 W., 6th P.M., Sec. 31, SE $\frac{1}{4}$  SERIAL NO. C.             
NW $\frac{1}{4}$  (Part)  
T. 15 S., R. 93 W., 6th P.M., Sec. 6, Lot 4 (Part)

| TEAM SIGNATURES:   | TITLE                 | RESOURCE VALUES<br>ASSIGNED | HOURS      |
|--------------------|-----------------------|-----------------------------|------------|
| <u>[Signature]</u> | Wildlife Biologist    | Wildlife                    | <u>10</u>  |
| <u>[Signature]</u> | Recreation Planner    | Recreation                  | <u>1</u>   |
| <u>[Signature]</u> | Geologist             | Geology                     | <u>1</u>   |
| <u>[Signature]</u> | Range Conservationist | Range                       | <u>1/2</u> |
| <u>[Signature]</u> | Archaeologist         | Cultural                    | <u>1</u>   |
| <u>[Signature]</u> | Soil Scientist        | Soils                       | <u>1</u>   |
| <u>[Signature]</u> | Hydrologist           | Water                       | <u>1</u>   |
| <u>[Signature]</u> | Engineer              | Improvements                | <u>1/2</u> |

ENVIRONMENTAL  
COORDINATOR: Bruce E. [Signature]  
(Signature)

7-31-81  
(Date)

OWNER: Carl Madison  
(Title or Name)

DISTRICT MANAGER: [Signature]  
(Signature)

8/10/81  
(Date)

## Decision Record/Rationale

### Decision:

Adopt Alternative #1, Gunnison Forks Habitat Management Plan, as written.

### Rationale:

1. Surface management of the wildlife mitigation lands covered by the habitat management plan was conveyed to the Bureau of Land Management through a Memorandum of Agreement made on March 29, 1979. The lands were to be managed for the primary purposes of wildlife habitat and fishing access to the Gunnison River. Any deviation from these intended purposes would result in conveyance of the land title to the Colorado Division of Wildlife.

The management plan and proposals are in compliance with the intent of the memorandum discussed above.

2. Relationship of the decision to the environmental assessment:

- A. Two alternatives were analyzed.

Alternative #1 - Proposed Action:

Adopt the Gunnison Forks Habitat Management Plan as written.

Alternative #2 - No Action:

Continue present management practices on the Gunnison Forks area.

Alternative #1 was selected since it conforms to the intent of the Memorandum of Agreement with the Water and Power Resources Service, and the impacts of the proposed action are positive.

- B. Environmental Statement Requirements

The proposed action is not highly controversial nor will it cause significant impacts to the human environment. An environmental statement is not required.

3. Factors Considered in the Decision

- A. The 1979 Memorandum of Agreement between the Water and Power Resources Service and the Bureau of Land Management which required the preparation of a habitat management plan.

- B. The U. S. Fish and Wildlife Service has been contacted during the formulation of the plan to insure that the proposals analyzed in this assessment were not in violation of the Endangered Species Act, P. L. 93-205.
- C. The intentions of the Floodplain Management Executive Order, #11988, have been met by the selected decision.
- D. The Colorado Division of Wildlife was consulted in the formulation of the habitat management plan and their comments, where appropriate, were incorporated in the proposals of the selected alternative.

#### 4. Mitigating Measures

- A. All soil disturbed during construction activities and abandoned roadways will be ripped and reseeded with the following mixture of seeds.

##### Upland Sites:

- 1# Indian ricegrass
- 2# Russian wildrye
- 1# Shadscale
- 1# Globemallow

##### Riparian Zone:

- 1# Nomad alfalfa
- 2# Yellow sweetclover
- 1# Streambank wheatgrass

- B. All project areas will receive a cultural resources inventory prior to soil disturbance. If cultural resources are found they will be avoided by project redesign or they will be mitigated as required in 36 CFR 800.
- C. All project sites will receive a predisturbance inventory for Sclerocactus glaucus to determine if this threatened species is present. If this cactus is found, it will be avoided by project redesign.
- D. All projects will conform to the current Visual Resource Management ratings of the management area.

#### 5. Conclusion

The decision does not conflict with any existing land use plans and

is in compliance with the terms of the 1979 Memorandum of Agreement between the Bureau of Land Management and Water and Power Resources Service.

8-6-81

Date

*Thomas E. Decker*  
acting Area Manager

8-10-81

Date

*Charles V. Jones*  
District Manager

## I. Purpose and Need for Action

In 1978 the Bureau of Reclamation (now Water and Power Resources Service) purchased the 175 acres covered by this plan for the purpose of partially mitigating wildlife habitat losses caused by construction of Blue Mesa Reservoir (Curecanti Project).

A 1979 Memorandum of Agreement (Appendix I of the HMP) transferred surface management of these mitigation lands to the Bureau of Land Management. The terms of the agreement required the formulation of a habitat management plan and management of the lands for the primary purposes of wildlife habitat management and recreation use (specifically access to the Gunnison River).

The subject lands are located approximately 12 miles east of Delta, Colorado. A general legal description appears on the face sheet of this Assessment. Precise metes and bounds are located in Appendix I of the HMP.

## II. Alternatives

### A. Proposed Action

The proposed action is the implementation of the Gunnison Forks Habitat Management Plan and the projects necessary to accomplish the objectives listed below.

#### 1. Planned Actions

Table I lists the proposed projects and management actions in a priority sequence. They are also displayed on a yearly basis in the implementation schedule of the Management Plan. Projects are also displayed on the map on the following page.

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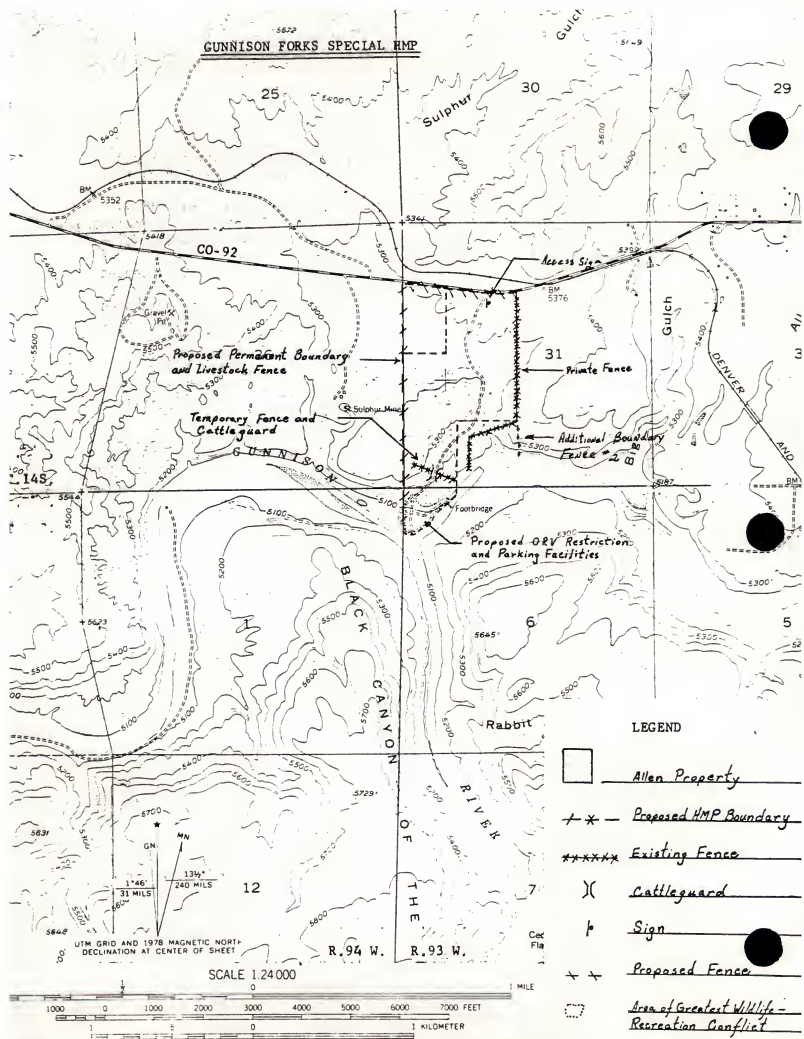
Table I

#### Proposed Projects and Management Practices

1. Maintain the integrity of the mature cottonwood stand. The stand would be monitored by Bureau biologists to insure a minimum of 80% of the current number of mature and sapling cottonwood trees are maintained.



# GUNNISON FORKS SPECIAL HMP



## LEGEND

- Allen Property
- Proposed HMP Boundary
- Existing Fence
- Cattle Guard
- Sign
- Proposed Fence
- Area of Greatest Wildlife-Recreation Conflict

- HMP AREA 2-1-79 70-27M 11
- 51
2. Install a temporary fence and cattleguard for livestock control in the riparian zone. This would be one component of #1.
    - a. The fence (a standard 3-strand barbed wire) and cattleguard would be the standard items discussed in the Uncompahgre Basin Resource Area Grazing Environmental Statement.
    - b. All areas disturbed during construction would be reseeded.
  3. Reverse the current riparian habitat degradation being caused by indiscriminate vehicle use. The methods for accomplishing this are detailed below.
    - a. Accomplish interim ORV closures on all roads in the riparian area except for those shown on the U.S.G.S. Lazear topographic map. The open roadways would still provide two access points to the river.
    - b. Pole fences are proposed as a physical barrier along the sides of the open roads. The fences would prevent vehicle entrance into closed areas.
    - c. Closed roads would be ripped and seeded with an adapted perennial seed mix.
    - d. Provide a graveled parking area, large enough for at least 20 vehicles, in the area where uncontrolled vehicle use and parking are presently occurring. Two-tenths of an acre would be devoted to the proposed parking area.
  4. Fence the entire HMP area, including approximately 40 acres of the Alkali Flats Allotment as shown on the map in Appendix III of the HMP and install a cattleguard at the intersection of the access road and Highway 92.
    - a. The fence and cattleguard would be the standard items described in #2.
    - b. The temporary fence and cattleguard would be removed and the area reseeded, as would the areas disturbed during construction of the permanent boundary fence.
  5. Install access signs and one interpretive sign.
    - a. Access signs would be installed at the intersection of Highway 92 and the access road.

waterfowl hunting, river rafting and picnicking--would not be restricted. The removal of random vehicle use and the expected habitat improvements would improve the capability of the site to attract and enhance recreation use.

Major road upgrading will reduce erosion problems and sediment (which would be in compliance with P. L. 92-500 and the local 208 water quality plan). It will also improve recreation access.

## 2. Standard Operating Procedures

The following standard Bureau procedures will be followed for all construction activities to mitigate or prevent impacts to protected resources and lessen conflicts with other resource uses.

- a. Cultural Resources - All project sites will receive a site-specific archaeological inventory prior to construction. If cultural resources are found, they will be avoided by project redesign or they will be mitigated according to 36 CFR 800.
- b. Reclamation - All disturbed sites will be reclaimed through reseeding with adapted plant material, water-barring, and any other measures necessary to stabilize and revegetate the sites.
- c. Endangered Species - All project sites will receive a site-specific endangered plant inventory to determine if Sclerocactus glaucus is present. The species is known to occur in the area. If the species is present, it will be avoided during construction activities.
- d. Visual Resource Management - All developments will conform to the restrictions of the VRM classes found in the Gunnison Gorge MFP.

## B. Alternative #2

This is essentially a no-action alternative under which management of the subject lands would continue at the present low intensity level. No attempts would be made to permanently upgrade the access road, fence out trespass livestock or protect the endangered species habitat values of the riparian area. Some periodic maintenance of the access road may occur.

Wildlife habitat degradation could be expected to continue with negative impacts to wintering bald eagles and resident

- b. The interpretive sign would be installed in the riparian zone.
  - c. Disturbed areas would be reseeded.
  - 6. Monitor recreation and wildlife uses of the management area in an effort to prevent the development of excessive conflicts. No formalized studies are proposed at this time.
  - 7. Accomplish permanent improvements in the access road.
    - a. Road excavation work will improve the grade and generate drainage ditches and a roadway template.
    - b. Culverts would be required in at least two locations to provide adequate drainage.
    - c. Gravel would be necessary on some portions of the road that get excessively soft and slippery when wet.
    - d. Any disturbed soils outside the roadbed, and old roadbed that is abandoned due to realignment, would be reseeded.
  - 8. The condition of the vegetative communities would be monitored, through the use of standard Bureau study techniques, to insure that there is no deterioration.
  - 9. Install boundary signs on metal fence posts.
  - 10. Provide yearly maintenance of the access road.
- 

The priority listing, shown in Table I, does not necessarily match the sequence shown on the HMP implementation schedule. This is due to expected changes in workloads, funding, and material availability (e.g., although signs are low priority from a habitat management standpoint, some of the signs are already on hand and others have been ordered).

The proposed action is expected to improve riparian and upland habitat conditions by reducing off-road vehicle impacts, livestock competition for available forage, and prevention of further degradation of the cottonwood stand through unauthorized cutting. Although off-road vehicle use in the riparian zone will be largely eliminated, the major recreation uses--fishing,

river otters. The access road would continue to deteriorate and soil erosion throughout the area would continue at present or higher levels. This would result in an increased sediment load in the Gunnison River.

The major impact would be the transfer of these lands to the Colorado Division of Wildlife if a management plan for the purpose of intensive wildlife management is not enacted (see Memorandum of Agreement in Appendix I of the HMP).

### III. Affected Environment

- A. Soils, Prime or Unique Farmlands - The lands covered by this HMP are not prime or unique farmlands. The soils are described in section E:4 of the Habitat Management Plan. The area is in a slight erosion class, but vehicular use seems to be causing accelerated erosion in some areas.

The riparian habitat of the HMP area is within a floodplain. No permanent structures are proposed within the floodplain, and the proposed vehicle control and habitat protection measures are consistent with the intent of Executive Order 11988.

- B. Vegetation - The upland portion of the management area is a salt desert shrub community with a typical composition of shadscale, saltbrush, galleta grass, cheatgrass, and Russian thistle. The adjacent public rangelands were rated in poor condition, and the apparent condition of the management area is the same.

The portion of the property abutting the North Fork of the Gunnison and the confluence area is vegetated by riparian vegetation which appears to be in fair condition. The most outstanding aspect of the riparian zone is the mature cottonwood stand. Regeneration of cottonwoods has been retarded by livestock grazing and indiscriminate vehicle use. Some of the mature cottonwoods have been lost to unauthorized wood cutting. Sapling trees were planted during the summer of 1980 in an effort to replace the mature trees that were destroyed. The survival of these saplings is doubtful since supplemental watering was not provided.

Other plant species found in the riparian zone include skunk bush sumac, willows, goldenrod, and large quantities of annual weeds.

The threatened cactus, Sclerocactus glaucus, has been found in shadscale/galleta communities in the vicinity. It may occur in the HMP area.

- C. Animals - The riparian zone is an important habitat component for two endangered species. Wintering bald eagles use the mature cottonwood stand for perching. There are no established eagle roosts. The area is part of the Gunnison Gorge Bald Eagle Heavy-Use Area. River otters (a state endangered species) were released into the Gunnison River at this location a total of 10 different times (the first in 1977). Otters have become established in the Gunnison Gorge and have been seen downstream on the Gunnison River below Delta.

Most of the other wildlife species that inhabit this plan area are non-game or small game species. Big game use is minimal. The HMP contains a listing of the wildlife species that may occur in the area as well as additional specifics.

Prairie dogs and ground squirrels are found in the salt desert shrub areas. These species may provide habitat for burrowing owls. At one time black-footed ferrets were suspected to occur in conjunction with prairie dogs in this area. Subsequent inventories failed to reveal ferrets or any reliable sign.

The riparian zone is used heavily by raptors, magpies, song birds and waterfowl.

The fishery in the Gunnison River above and below the confluence is excellent. The high quality cold water supports both brown trout and rainbow trout. Rainbows are planted annually at the confluence. The fisheries values of the North Fork are inhibited by water quality problems.

- D. Aesthetics/Visual Resource - The area has been rated as Class II in the riparian zone and Class IV in the upland habitat areas. Although the riparian zone is rated Class II, the excess road situation has degraded the visual quality of this site (see the photographs in the HMP for a reference).
- E. Land Uses - The subject lands are not within a wilderness study area.

Livestock grazing was historically one of the uses of this tract prior to purchase for wildlife mitigation. Unauthorized livestock grazing has occurred since the federal government acquired title to these lands. Paul Allen, the previous owner, did graze the management area with sheep.

Recreation activity in the management area has been increasing during the last few years. This is due in part to the increasing quality of the fishery due to cold water releases from the Curecanti Units. The confluence area has also functioned as a takeout point for river rafters floating the Gunnison Gorge. Waterfowl hunting, picnicking and camping are also part of the recreation uses of this property. Nearly all of these activities are pursued in the riparian zone.

At the present time no specific figures are available to quantify the current recreation use levels.

- F. Ownership Uses of Adjacent Land - The western boundary of the HMP is abutted by public land and some private land presently owned by Paul Allen. The northern boundary (along Highway 62) is Public Land. The eastern boundary is private land owned by Columbine Ranches. All adjacent lands are grazed by sheep or cattle.
- G. Areas of Critical Environmental Concern - There are no ACEC's designated in the HMP area.

#### IV. Environmental Impacts

Resources which will not be impacted or which will be effectively mitigated by measures delineated in the proposed action (e.g., seeding disturbed sites) will not be discussed in this section.

##### A. Proposed Action

###### 1. Impacts

- a. Soils - The present uncontrolled vehicle use and poor condition of the access roads are contributing to moderately accelerated soil erosion. The proposed road closures in the riparian area, major access road improvements, and livestock control measures are expected to effect an unquantified improvement in soil erosion and sediment load in the Gunnison River through: improving vegetative ground cover in the riparian and upland habitats, controlling runoff from the access road and reducing soil disturbances on the access road. The proposed graveled parking area should contribute less soil movement than the existing ORV trails in the riparian zone.
- b. Vegetation - The proposed livestock control measures would permit some improvement in vegetative ground



cover and in the condition of the existing plants. The removal of livestock from the riparian zone would also permit regeneration of the cottonwood stand since resprouts would not be consumed by trespass livestock. Even with the construction of a parking area large enough for 20 vehicles, the closing of the excess trails in the riparian zone would place an estimated 1.0 acre of land back into vegetative production. Random use of vehicles would decrease, allowing an unquantifiable acreage of existing vegetation to improve. This would also improve the stabilization and flood control values of the floodplain.

Livestock removal in the shadscale/galleta grass type may not cause major changes in plant density or composition. Total ground cover should increase.

- c. Animals - The proposed measures which will insure the integrity of the cottonwood stand, reduce vehicle damage to the riparian zone, and insure that wildlife has priority use of the vegetative resources will provide positive benefits. These benefits would extend to the endangered species (bald eagle and river otter) and a large number of non-game bird species for which the riparian community is an important habitat component.

ORV control in the riparian zone will not only improve vegetative conditions; it should also reduce some of the disturbance to resident wildlife. Studies such as that done by Michael Weinstein (Impact of Off Road Vehicles on the Avifauna of Afton Canyon California, 1978, Bureau of Land Management Contract #CA-060-CT7-2734) have shown a substantial reduction in habitat use in areas of heavy ORV use. ORV closures would have the effect of making more of the existing habitat usable.

The proposed destruction of up to 0.2 acres of habitat for a parking area would be offset by the habitat improvements discussed above.

Signing the access road along Highway 92 and improving the access road may increase recreation use in the management area to the detriment of the resident wildlife. The timing of the proposals is designed to help mitigate the potential negative effects on wildlife. The ORV closures, parking area construction,

and interpretive sign should increase the recreation capacity of the area before the access road receives its major improvement work.

Recreation/wildlife conflicts will be monitored in the future by Bureau and Colorado Division of Wildlife personnel. If negative impacts to wildlife become excessive in the future, additional actions may need to be taken such as the use restrictions mentioned in the Habitat Management Plan.

- d. Visual Resource Management - The proposed action should make some improvement in visual conditions of the management area. This will be especially true in the VRM Class II area where the present proliferation of roads would be eliminated.

The boundary fences are compatible with the VRM Class IV rating of the upland habitat areas.

- e. Recreation Resources - The proposed road closures will undoubtedly be viewed as a negative impact by some of the Gunnison Forks user groups. The closures would not prevent any of the major current recreation uses though it would require the users to alter their behavior.

Some user groups may view the road closures as a positive impact. The aesthetics of the area would improve thus enriching the capability of the site to attract recreation use.

Access, boundary, and interpretive signs would also provide positive recreation impacts by providing information.

- f. Existing Land Uses - The wildlife habitat and recreation uses of this management area would be positively impacted by the proposed action.

The removal of the small tract of land in the north-west corner of the management area from the Alkali Flats Allotment should not have a significant impact on livestock grazing in that allotment. No reduction in the permittee's preference is proposed.

## 2. Adverse Impacts Which Cannot Be Avoided.

None.

3. Short-Term Use vs. Long-Term Productivity

The proposal is designed in an effort to protect the long-term productivity of the management area while permitting the existing recreation uses.

4. Irreversible Commitments Of Resources

None.

5. Conflicts With Other Land-Use Plans, Policies, and Controls

None.

B. Alternative II - No Action

1. Impacts

- a. Soils - The continuation of indiscriminate vehicle use, trespass livestock use and access road deterioration will continue to contribute to accelerated soil losses. If the apparent trend in increasing recreation use continues, soil losses will increase, degrading water quality by increasing sediment load.

Soil compaction would continue causing increased runoff and inhibiting plant establishment.

- b. Vegetation - Vehicle use throughout the riparian area and continued trespass livestock use would inhibit the regeneration of the cottonwood grove and may further deteriorate vegetative conditions in the understory.

Vegetative conditions on the upland sites would remain static or decline.

Additional cottonwoods may be lost to unauthorized cutting.

- c. Animals - Recreation use patterns and livestock use would continue to cause a deterioration of wildlife habitat values through vegetative deterioration as described above. Riparian habitat degradation could cause a negative impact on the river otter and wintering bald eagles as well as a large number of other non-game species. Indiscriminate human activity throughout the riparian habitat would lessen the usability of even this degraded habitat.

The area's wildlife would have to continue competing with livestock for vegetative resources throughout the management area.

- d. Visual Resources - The visual resources of the riparian zone in particular would continue to be heavily impacted by vehicle use.
- e. Recreation Resources - This alternative would permit current recreation uses of the management area to continue unrestricted. The eventual result may be a significant reduction in site attractiveness due to resource damage.

2. Adverse Impacts Which Cannot be Avoided

With no management plan of any kind for this area there is no vehicle which would permit avoidance of any of the adverse impacts previously described.

3. Short-Term Use vs. Long-Term Productivity

The long-term productivity of the subject lands would be lessened substantially through the impacts discussed above such as soil loss and vegetative disturbance.

This alternative may not in itself threaten the existence of either river otters or bald eagles, but it would have a negative impact on both endangered species through habitat deterioration.

4. Irreversible Commitments of Resources

None.

5. Conflicts With Other Land-Use Plans, Policies, and Controls

This alternative would fail to meet the requirements of the Memorandum of Understanding between the Bureau of Reclamation, Bureau of Land Management and Colorado Division of Wildlife. The Allen property (the HMP tract) would then revert to the Colorado Division of Wildlife for management. That agency would likely undertake many of the actions described in the proposed action since they were involved in the formulation of the proposed action.

V. Energy Requirements and Conservation Potential of Both Alternatives

There does not appear to be any significant difference between the two alternatives.

VI. List of agencies who will receive copies of this Assessment:

Regional Manager  
Colorado Division of Wildlife  
Southwestern Regional Office  
P. O. Box 788  
Montrose, CO 81401

Regional Supervisor  
Water and Power Resources Service  
Upper Colorado Regional Office  
P. O. Box 11568  
Salt Lake City, UT 84147

Area Manager  
U. S. Fish and Wildlife Service  
Room 1426, Federal Building  
Salt Lake City, UT 84138

G. Implementation Schedule and Cost Estimate

The following tabular summary presents work months (WM) and costs required to implement the Habitat Management Plan. Costs are arranged by accomplishment year, planned action and units to be completed.

YEAR 1

| <u>Action/Code</u>  | <u>WM/\$</u> | <u>Procurement</u> | <u>Equipment</u> | <u>Total</u> | <u>Units</u>        |
|---|--------------|--------------------|------------------|--------------|---------------------|
| Temporary Fence and<br>Cattleguard<br>4350 5560               | < 1/1,100    | \$ 2,000           | -                | \$ 3,100     | 0.25 miles Done JKT |
| Cottonwood Monitoring<br>4350 5825                            | < 1/1,100    | -                  | -                | \$ 1,100     | 1 study Done JKT    |
| Monitor Upland and<br>Riparian Habitat Condition<br>4350 5525 | < 1/1,100    | -                  | -                | \$ 1,100     | 2 studies Done JKT  |
| Road Maintenance #3606<br>2230 8267                           | < 1/1,000    | \$2,360            | -                | \$ 2,360     | 1.2 miles Done JKT  |
| Placement of signs to<br>note access at Highway 92            | < 1/1,000    | -                  | -                | \$ 1,000     | 2 signs             |
| Designate HMP boundary<br>4350 0163                           | < 1/ -       | -                  | -                | -            | 7 signs Done JKT    |



YEAR 2

| <u>Action/Code</u>  | <u>WM/\$</u> | <u>Procurement</u> | <u>Equipment</u> | <u>Total</u> | <u>Units</u> |
|---|--------------|--------------------|------------------|--------------|--------------|
| Interim ORV Closures<br>9200 4920                         | 3/-          | -                  | -                | -            | 1 case       |
| Construct Vehicle<br>Barriers<br>4350 5560                | 1/\$1,500    | \$1,500            | -                | \$1,500      | 3/4 mile     |
| Construct Parking<br>Area<br>4350 5561                    | < 1/\$1,000  | \$1,000            | -                | \$1,000      | 1            |
| Monitor Upland and<br>Riparian Habitat Areas<br>4350 5525 | < 1/\$1,000  | -                  | -                | \$1,000      | 2 studies    |
| Install Interpretive<br>Sign<br>4350 0163                 | < 1/\$1,000  | -                  | -                | \$1,000      | 1 sign       |
| Maintain Road #3606<br>2230 8267                          | < 1/\$500    | -                  | -                | \$ 500       | 1.2 mile     |

YEAR 3

| <u>Action/Code</u>  | <u>WM/\$</u> | <u>Procurement</u> | <u>Equipment</u> | <u>Total</u> | <u>Units</u> |
|---|--------------|--------------------|------------------|--------------|--------------|
| Monitor Upland and<br>Riparian Habitat Condition<br>4350 5525 | < 1/\$1,000  | -                  | -                | \$ 1,000     | 2 studies    |
| Upgrade Access (#3606)<br>Road; Gravel, Culverts<br>2230 8267 | 1.5/\$4,000  | \$7,250            | -                | \$11,250     | 1.2 miles    |
| Monitor Cottonwood<br>Stand<br>4350 5825                      | < 1/\$1,000  | -                  | -                | \$ 1,000     | 1 study      |

YEAR 4

| <u>Action/Code</u>                                  | <u>WM/\$</u> | <u>Procurement</u> | <u>Equipment</u> | <u>Total</u> | <u>Units</u> |
|---|--------------|--------------------|------------------|--------------|--------------|
| Fence Entire<br>HMP Area<br>4350 5560               | 1/\$1,500    | \$1,500            | -                | \$1,500      | 2.5 miles    |
| Install Cattleguard<br>4350 5560                    | 1/\$1,000    | -                  | -                | \$1,000      | 1            |
| Monitor Upland<br>and Riparian Habitat<br>4350 5525 | < 1/\$1,000  | -                  | -                | \$1,000      | 2 studies    |

YEAR 5

| <u>Action/Code</u>                      | <u>WM/\$</u> | <u>Procurement</u> | <u>Equipment</u> | <u>Total</u> | <u>Units</u> |
|---|--------------|--------------------|------------------|--------------|--------------|
| Maintain Access Road #3606<br>2230 8267 | < 1/\$1,000  | -                  | -                | \$1,000      | 1.2 miles    |

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YEAR 6

|                                    |             |   |   |         |         |
|------------------------------------|-------------|---|---|---------|---------|
| Cottonwood Monitoring<br>4350 5825 | < 1/\$1,000 | - | - | \$1,000 | 1 study |
|------------------------------------|-------------|---|---|---------|---------|

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YEAR 7

Monitor Upland and  
Riparian Habitat  
4350 5525


I. Public Affairs

Public affairs efforts for this management area will be aimed almost entirely at the recreationists using the area. Public contact by Bureau and Colorado Division of Wildlife personnel will provide information on management objectives and habitat values. The proposed access and interpretive signs will also provide public information.

J. CONCURRENCE AND APPROVAL


The Gunnison Forks Habitat Management Plan was prepared, reviewed, and approved by the undersigned:

Prepared by:

  
James R. Ferguson  
Wildlife Biologist  
Uncompahgre Basin Resource Area

Date

8/5/81

  
Michael J. Blymyer  
Wildlife Biologist  
Montrose District Office

Date

30 July 1981

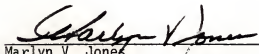
Reviewed by: Donley M. Lotvedt, BLM Area Manager  
Uncompahgre Basin Resource Area

Montrose BLM District Office  
Resources Staff

Colorado BLM State Office  
Resources Staff

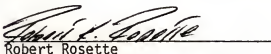
Colorado Division of Wildlife  
Southwest Regional Office Staff

Approved by:

  
Marilyn V. Jones  
BLM Montrose District Manager

Date

8/4/81

  
Robert Rosette  
DOW Southwest Regional Manager

Date

8/4/81

Appendix I

Memorandum of Understanding



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF RECLAMATION

AGREEMENT BETWEEN THE BUREAU OF RECLAMATION  
AND BUREAU OF LAND MANAGEMENT TRANSFERRING  
LANDS FOR FISH AND WILDLIFE HABITAT

THIS MEMORANDUM OF AGREEMENT, made this 29th day  
of March, 1979, by and between the BUREAU OF RECLAMATION,  
hereinafter referred to as the "Bureau", pursuant to the authority contained  
in Section 8 of the Colorado River Storage Project Act of April 11, 1956  
(P.L. 84-485, 70 Stat. 110; 40 U.S.C. 620 g), and the Fish and Wildlife  
Coordination Act of August 12, 1958 (48 Stat. 401, as amended; U.S.C. 661,  
et. seq.), acting by and through the Regional Director, Upper Colorado Region;  
in cooperation with the Regional Director, Region 6, Fish and Wildlife Service,  
and the Director, Colorado Division of Wildlife; and the BUREAU OF LAND  
MANAGEMENT, hereinafter referred to as the "BLM", acting by and through the  
State Director, Colorado.

WITNESSETH:

WHEREAS, Section 8 of the Colorado River Storage Project Act  
authorizes and directs the Secretary of the Interior, to investigate, plan,  
construct, operate and maintain (1) public recreational facilities on lands  
acquired for the development of the Colorado River Storage Project and of  
the participating projects, to conserve the wildlife on the acquired lands  
and to provide for public use and enjoyment of the same by such means as  
are consistent with the primary purposes of said projects; and (2) facilities

to mitigate losses of, and improve conditions for, the propagation of fish and wildlife; and

WHEREAS, the said Section 8 further authorizes the Secretary of the Interior to acquire lands necessary for the construction, operation and maintenance of the aforesaid facilities and to dispose of the acquired land upon such terms and conditions as will best promote their development and operation in the public interest; and

WHEREAS, the Bureau has acquired fee title to approximately 175 acres of private land, commonly known as the Allen Property, located near the confluence of the North Fork with the Gunnison River, in Delta County, Colorado as partial mitigation for fish and wildlife habitat losses incurred by construction of Blue Mesa Reservoir, Curecanti Unit of said project; and

WHEREAS, conveyance to BLM of title to these acquired lands will assure unrestricted public access, fishery use, intensive habitat management for wildlife, and is agreeable with the Colorado Division of Wildlife.

NOW THEREFORE, the parties above-stated do hereby agree that the following terms and conditions shall govern the transfer of title, administration and development of the Allen Property, shown on the attached map, Illustration 1 and hereinafter referred to as the Property:

1. The Bureau hereby conveys fee title of the Property to BLM, including all interests and rights of the United States of America in and to the Property which is described in Exhibit A that is attached hereto and made a part hereof.

2. BLM agrees to develop and manage the Property for the primary purpose of providing for public fishing access and as a refuge or management area for the use, benefit, protection, conservation, propagation and management of

the fish and wildlife which inhabit the State of Colorado, and other incidental BLM land management purposes which are compatible to the primary purposes expressed.

3. BLM and the Colorado Division of Wildlife shall jointly prepare a cooperative Wildlife Habitat Management Plan (HMP, Bureau Manual 6620) at some future date mutually agreeable to both parties. This plan shall specify precise wildlife management objectives, planned actions and evaluation procedures for the Property and its adjacent ecosystem. It shall also contain a formal cooperative agreement on all items to be signed by the BLM's State Director and the Division's Director.

4. Acquisition of the Property is within legal compliance of the Fish and Wildlife Coordination Act and is recognized by the signatory parties hereto as partial fulfillment of fish and wildlife habitat mitigation requirements for the Curecanti Unit, Colorado River Storage Project.

5. If, at some future time, the BLM's land management policies should require subordination or diversion from the intended primary purposes of fish and wildlife habitat management, fee title to the Property shall be conveyed to the Colorado Division of Wildlife within 90 days after said policy is officially transmitted to the Division.

6. The U.S. Fish and Wildlife Service, Region 6, shall be kept informed of all fish and wildlife habitat management actions on the Property and will be provided the opportunity to review and comment on the Wildlife Habitat Management Plan before its final approval.

7. The items in this Agreement are subject to the laws and regulations of the United States and the State of Colorado. Nothing herein shall be construed to be financially obligating to the signatory parties hereto.

8. This Agreement supercedes and supplants that letter agreement executed between BLM and Colorado on October 5, 1978, and shall become effective on the date when last signed and shall remain in effect until the Wildlife Habitat Management Plan and its formal cooperation agreement, as designated in Item 3, are completed and approved.

IN WITNESS WHEREOF, the parties hereto have executed this agreement as of the day and year first above written.

• April 5, 1980 •  
Filed 5-1-80

UNITED STATES OF AMERICA

By  
[Signature]

Regional Director, Upper Colorado Region  
Bureau of Reclamation

By  
[Signature]

State Director, Colorado  
Bureau of Land Management

I CONCUR:

[Signature]  
Director, Colorado Division of Wildlife

[Signature]

Acting Regional Director, Region 6, Fish & Wildlife Service

Parcel No. EMDR Mit.-1 (FWL)

A parcel of land in Delta County, Colorado, in Section 31, Township 14 South, Range 93 West, 6th Principal Meridian, and in Section 6, Township 15 South, Range 93 West, 6th Principal Meridian, containing 172.27 acres, more or less, and being more particularly described as follows:

That portion of the SE $\frac{1}{4}$ NW $\frac{1}{4}$  of Section 31, Township 14 South, Range 93 West, 6th Principal Meridian, lying south of Colorado State Highway 92, more particularly described as follows:

Beginning at a point on the west line of the Southeast Quarter of the Northwest Quarter (SE $\frac{1}{4}$ NW $\frac{1}{4}$ ) of Section 31, Township 14 South, Range 93 West, 6th P.M., where the south right-of-way boundary of Colorado State Highway No. 92 intersects said and from which point the northwest corner of said Section 31 bears North 40°43'46" West 1813.84 feet; thence from said true point of beginning South 82°49' East, 334.91 feet along said line southerly highway right-of-way boundary; thence 941.81 feet along the arc of a curve through a central angle of 18°27'34" to the left with a radius of 2924.79 feet and a long chord North 87°57'13" East, 938.23 feet to a point where said highway right-of-way boundary intersects with the east line of the Southeast Quarter of the Northwest Quarter (SE $\frac{1}{4}$ NW $\frac{1}{4}$ ) of said Section 31; thence along said east line South 0°07'30" East, 1265.78 feet to the center of Section 31; thence along the south line of the Southeast Quarter of the Northwest Quarter (SE $\frac{1}{4}$ NW $\frac{1}{4}$ ) of said Section 31, North 89°37' West, 1271.60 feet; thence along the west line of the Southeast Quarter of the Northwest Quarter (SE $\frac{1}{4}$ NW $\frac{1}{4}$ ) of said Section 31, North 0°03' West, 1265.65 feet to the point of beginning, containing 35.80 acres, more or less;

Also, the NE $\frac{1}{4}$ SW $\frac{1}{4}$ , Lot 3 (39.35 acres), and Lot 4 (39.12 acres) of Section 31, Township 14 South, Range 93 West, 6th Principal Meridian, containing 118.47 acres, more or less;

Also that portion of Lot 4, Section 6, Township 15 South, Range 93 West, 6th Principal Meridian, lying northwesterly of the North Fork of the Gunnison River and northeasterly of the Gunnison River, being more particularly described as follows:

Beginning at the approximate point of intersection of the centerlines of the channels of the Gunnison River and the North Fork of the Gunnison River, thence

along the centerline of the Gunnison River, North 40°52'32" West, 221.87 feet to the west line of Section 6; thence along said west line North 1°21' East, 770.00 feet to the northwest corner of said Section 6; thence along the north line of said Section 6 South 89°57' East, 1295.58 feet to the northeast corner of said Lot 4, said corner being on the approximate centerline of the North Fork of the Gunnison River; thence along said approximate centerline (being along the north-westerly boundary of the land described in that certain deed conveyed by Paul B. Allen and Erma Jean Allen to William H. McCluskie (Columbine) recorded in Book 441, page 688 of the Delta County records) South 40°28'00" West, 930.00 feet; and thence South 68°05'00" West, 615.00 feet to the point of beginning, containing 18.0 acres, more or less.

The total area included in Parcel No. BMDR Mit.-1 (FWL) is 172.27 acres, more or less;

Together with all appurtenances thereto belonging or in any-wise appertaining including water and water rights, ditches and ditch rights, if any, belonging thereto and used in connection therewith;

Excepting and reserving from said conveyance an undivided one-half interest in the gas, oil, and minerals in the above-described land, together with the right to prospect for and remove the same.

Said conveyance is subject to (1) coal, oil, gas and mineral rights reserved to or outstanding in third parties, and (2) easement and rights-of-way for roads, railroads, telephone lines, transmission lines, ditches, conduits or pipelines, on, over, or across said lands.

Appendix II

Photos





Above - Aerial view showing riparian zone and cottonwood stand (center), access road (upper right), and the salt desert shrub community (center top). Note the road system in the riparian zone.

Below - Aerial view showing vehicle impacts in the riparian zone.

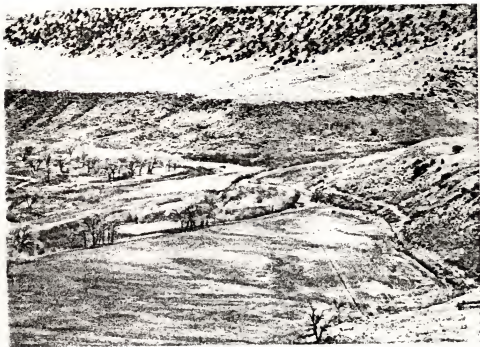




Above - Raptor nest in mature cottonwood.

Below - Magpie nest in mature cottonwood.





Above - Confluence area as viewed from private land south-east of the management area.

Below - General aspect of the salt desert shrub community. The confluence is in the center of the picture.





Above - Oriole nest in cottonwood.

Below - Human fecal material and toilet paper, one of the common recreation impacts to the riparian zone.

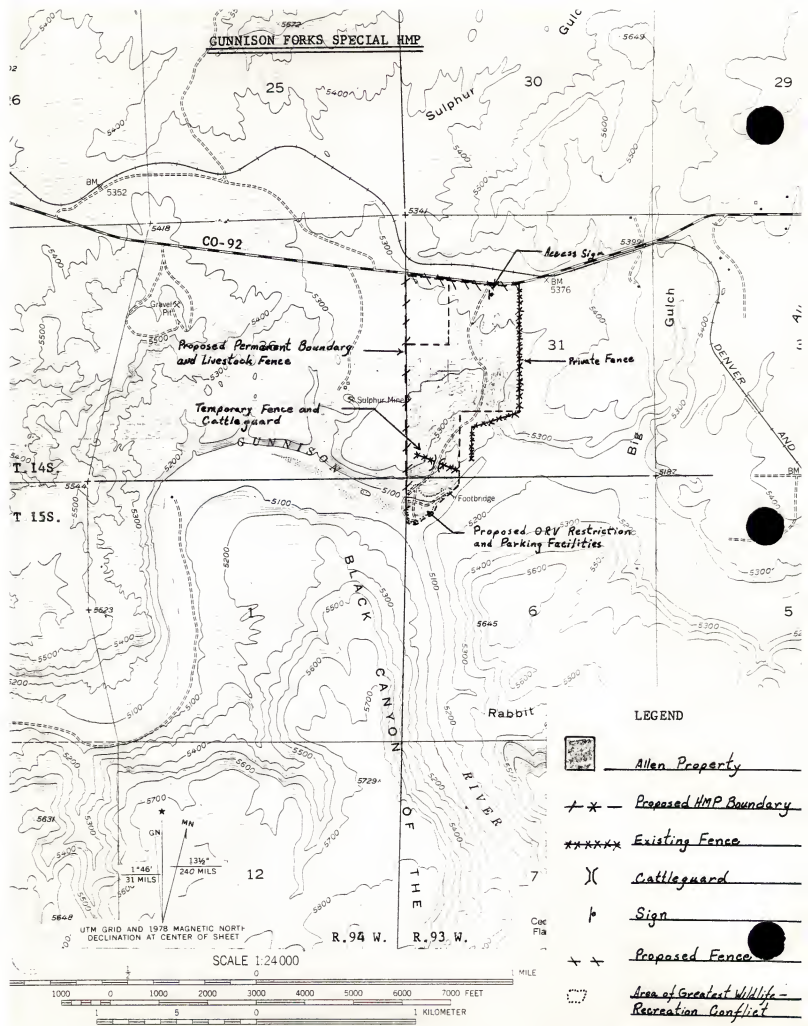


## Appendix III

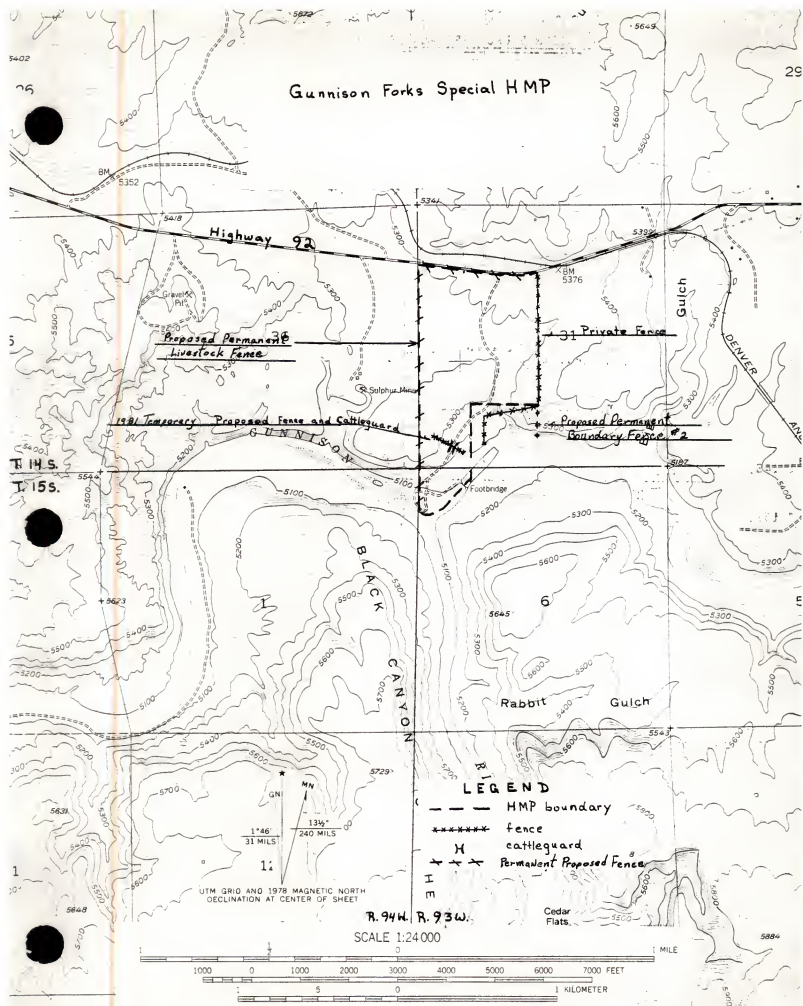
### Maps



# GUNNISON FORKS SPECIAL HMP

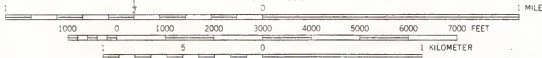


# Gunnison Forks Special HMP



R. 94W. R. 93W.

SCALE 1:24 000



CONTOUR INTERVAL 20 FEET  
NATIONAL GEODETIC VERTICAL DATUM OF 1929

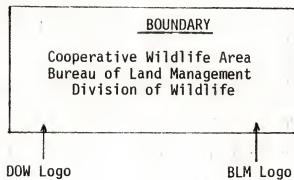
• AD-3161



## Appendix IV

### Proposed Signs

SAMPLE: Existing boundary signs. Actual sign differs in format, but the content is as shown below.



Sign for the area - to be placed off the highway - perhaps near the user Parking Area

GUNNISON FORKS WILDLIFE MANAGEMENT AREA

This land was acquired through <sup>Bureau of Reclamation</sup> ~~the Water and Power Resources Service~~ as partial mitigation for wildlife habitat losses as a result of the construction of Blue Mesa Reservoir, located 40 miles upstream on the Gunnison River. This area is currently managed jointly by the Bureau of Land Management and Colorado Division of Wildlife for wildlife habitat values and recreational use. Please respect the habitat values; keep vehicles on roadways; cut no trees, and pack out your refuse.

Thank you for your help and care.

BLM Emblem

DOW Emblem

1078

10  
1977)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SIGN REQUISITION

INSTRUCTIONS

1. Number orders consecutively. Submit separate requisition for each sign.
2. Use only the approved abbreviations shown in BLM Manual Section 9130.
3. Requisition Approvals - District Manager signs, dates, and submits all copies (except yellow) to State Office for approval. State Office Signs Coordinator checks requisition for compliance with standards in BLM Manual Section 9130 and then must sign, date, and forward set to State Office of respective sign shop. Sign shop returns request to ordering office when sign order is completed.

Description - (If standards are not available, furnish: size of sign face, materials recommended, style (rustic routed, painted, reflectorized, other), color combinations (white on brown, white on green, other), new, replacement, or other. Attach additional sheet, if necessary.)

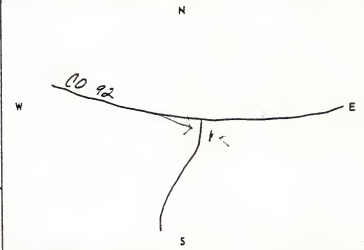
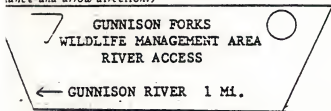
|                            |                  |
|----------------------------|------------------|
| State                      | Colorado         |
| District                   | Montrose         |
| Requisition Number         |                  |
| District sign plan number  | 78               |
|                            | 900-030-1077-120 |
| Benefiting activity        | 4350             |
| Number of signs to be made | 1                |

Standard guide sign. High density exterior plywood with brown face. Federal Highway Administration, Series D, letter size 6, silver white letters.

Attach both BLM and Colorado Division of Wildlife emblems (Colorado emblem supplied).

Face of Sign - (Sketch shape if not BLM standard, show word-size of letters, upper case or upper and lower case, print style and exactly what is wanted, spell correctly, double check language and arrow direction.)

Sketch of Location - (Show sight distance, right-of-way if applicable, and give important natural features such as rock outcrops, heavy brush, timber, etc. which could effect sign design.)



Reverse of Sign - (Same instructions as for Face of Sign.)

|                                    |           |         |
|------------------------------------|-----------|---------|
| Name of originator (print or type) |           | Date    |
| James A. Ferguson                  |           | 7/24/80 |
| Approvals                          |           |         |
| District                           | Signature | Date    |
| State                              | Signature | Date    |

Location - (Nearest quarter, quarter of section; township, range & meridian.)

FOR SHOP USE ONLY

T.14S., R.93W., Sec31, NW1/4SE1/4NW1/4

|                     |               |            |
|---------------------|---------------|------------|
| Date received       | Initials      | Shop       |
| Finished dimensions |               | Board feet |
| Shop cost           | Shipping cost |            |

road or Trail Designation - (give name and number)

Colorado Highway 92

Vehicle speed  
55mph

Road surface  
Paved

APPENDIX V

Wildlife Species List

## APPENDIX V

The following list of wildlife species which may occur on the management area has been developed mostly from the Colorado Latilong Distribution Studies for birds, mammals, and amphibians and reptiles. Fish occurrences have been obtained from the Division of Wildlife. Only those species in latilong block #16 which typically use sites such as those found in the HMP area are listed.

Those species marked with an asterisk (\*) are confirmed to occur in the HMP area. This data was extracted from Bureau records.

Explanation of other marks:

# - Considered endangered on Colorado Division of Wildlife list.

+ - Listed as endangered on Federal listing of May 20, 1980.

## WILDLIFE SPECIES LIST

### MAMMALS

Mountain lion  
Felis concolor

Mule deer  
Odocoileus hemionus

\* Cottontail rabbit  
Sylvilagus nuttallii and audubonii

Beaver  
Castor canadensis

Pinon mouse  
Peromyscus truei

Canyon mouse  
Peromyscus crinitus

Deer mouse  
Peromyscus maniculatus

House mouse  
Mus musculus

Masked shrew  
Sorex cinereus

Wandering shrew  
Sorex vagrans

Northern pocket gopher  
Thomomys talpoides

Muskrat  
Ondatra zibethicus

Ringtail  
Bassariscus astutus

\* White-tailed jackrabbit  
Lepus townsendii

\* White-tailed prairie dog  
Cynomys leucurus

\* Gunnison's prairie dog  
Cynomys gunnisoni

Rock squirrel  
Spermophilus variegatus

\* White-tailed antelope squirrel  
Ammospermophilus leucurus

Golden-mantled ground squirrel  
Spermophilus lateralis

Least chipmunk  
Eutamias minimus

Colorado chipmunk  
Eutamias quadrivittatus

Coyote  
Canis latrans

Red fox  
Vulpes fulva

Grey fox  
Urocyon cinereoargenteus

Raccoon  
Procyon lotor

\* Long-tailed weasel  
Mustela frenata

Ermine  
Mustela ermina

\* River otter - State endangered species  
Lutra canadensis

\* Mink  
Mustela vison

American badger  
Taxidea taxus

Spotted skunk  
Spilogale putorius



Striped skunk  
Mephitis mephitis

Bobcat  
Lynx rufus

## AMPHIBIANS AND REPTILES

Tiger salamander  
Ambystoma tigrinum

Boreal toad  
Bufo boreas

Great Basin spadefoot  
Scaphiopus intermontanus

Western toad  
Bufo boreas

Woodhouse's toad  
Bufo woodhousei

Little brown bat  
Myotis lucifugus

Big brown bat  
Eptesicus fuscus

Hoary bat  
Lasiurus cinereus

Silver-haired bat  
Lasionycteris noctivagans

Fringed myotis  
Myotis thysanodes

Chorus frog  
Pseudacris triseriata

Leopard frog  
Rana pipiens

\* Collared lizard  
Crotaphytus collaris

Migrant

Migrant

Migrant

Northern plateau lizard  
Sceloporus undulatus

\* Sagebrush lizard  
Sceloporus graciosus

Tree lizard  
Urosaurus ornatus

Short-horned lizard  
Phrynosoma doulassi

Plateau whiptail  
Cnemidophorus velox

Smooth green snake  
Opheodrys vernalis

\* Great Basin gopher snake  
Pituophis melanoleucus

Utah milk snake  
Lampropeltis triangulum

Western terrestrial garter snake  
Thamnophis elegans

#### CRUSTACEANS

Crayfish  
Orconectes causeyi

#### FISH

Flathead minnow  
Pimephales promelas

Speckled dace  
Rhinichthys osculus

Western white sucker  
Catostomus commersoni

Bluehead sucker  
Catostomus discobolus

Flannelmouth suckers  
Catostomus latipinnis

Green sunfish  
Lepomis cyanellus

Roundtail chub  
Gila robusta robusta

Mottled sculpin  
Cottus bairdi

Carp ( + mirror carp)  
Cyprinus carpio

Rainbow trout  
Salmo gairdneri

Brown trout  
Salmo trutta

Northern pike  
Esox lucius

# Humpback sucker  
Xyrauchen texanus (Possible)

+ # Colorado River squawfish  
Ptychocheilus lucius (Possible)

+ # Bonytail chub  
Gila elegans

## BIRDS

### Loons

Common loon  
Gavia immer

### Grebes

Horned grebe  
Podiceps auritus

Migrant

Migrant

Eared grebe  
Podiceps caspicus

Migrant

Western grebe  
Aechmophorus occidentalis

Migrant

#### Hérons

Great blue heron  
Ardea herodias

Common resident

Snowy egret  
Leucophoyx thula

Uncommon breeder and migrant

Black-crowned night heron  
Nycticorax nycticorax

Fairly common breeder and migrant

American bittern  
Botaurus lentiginosus

Uncommon breeder and migrant

White-faced ibis  
Plegadis chihi

Common migrant

#### Swans and Geese

Whistling swan  
Olor columbianus

Migrant

Canada goose  
Branta canadensis

Resident

#### Dabbling Ducks

Mallard  
Anas platyrhynchos

Resident

Gadwall  
Anas strepera

Fairly common breeder

Pintail  
Anas acuta

Migrant

Green-winged teal  
Anas carolinensis

Fairly common resident

Blue-winged teal  
Anas discors

Breeder and migrant

Cinnamon teal  
Anas cyanoptera

Wood duck  
Aix sponsa

Bay Ducks

Redhead  
Aythya americana

Canvasback  
Aythya valisineria

Lesser scaup  
Aythya affinis

Common goldeneye  
Bucephala clangula

Barrow's goldeneye  
Bucephala islandica

Bufflehead  
Bucephala albeola

Mergansers

Hooded merganser  
Lophodytes cucullatus

Common merganser  
Mergus merganser

Red-breasted merganser  
Mergus serrator

Vultures, Eagles, Hawks, and Falcons

Turkey vulture  
Cathartes aura

Sharp-shinned hawk  
Accipiter striatus

Cooper's hawk  
Accipiter cooperii

Breeder and migrant

Migrant

Abundant migrant

Common migrant

Abundant migrant

Common winter visitor

Rare migrant

Common migrant

Unusual migrant

Common resident

Common resident

Fairly common breeder

Uncommon resident

Uncommon resident

|  |                                  |
|--|----------------------------------|
| Red-tailed hawk<br><u>Buteo jamaicensis</u>        | Fairly common resident           |
| Swainson's hawk<br><u>Buteo swainsoni</u>          | Fairly common breeder            |
| Rough-legged hawk<br><u>Buteo lagopus</u>          | Winter visitor                   |
| * Golden eagle<br><u>Aquila chrysaetos</u>         | Fairly common resident           |
| * #+ Bald eagle<br><u>Haliaeetus leucocephalus</u> | Fairly common winter resident    |
| Marsh hawk<br><u>Circus cyaneus</u>                | Fairly common resident           |
| Osprey<br><u>Pandion haliaetus</u>                 | Unusual migrant                  |
| Prairie falcon<br><u>Falco mexicanus</u>           | Rare breeder                     |
| Merlin<br><u>Falco columborius</u>                 | Unusual migrant, winter resident |
| American kestrel<br><u>Falco sparverius</u>        | Fairly common resident           |
| <u>Gallinaceous Birds</u>                          |                                  |
| Gambel's quail<br><u>Lophortyx gambelii</u>        | Fairly common breeder            |
| Chukar<br><u>Alectoris graeca</u>                  | Uncommon resident                |
| <u>Cranes</u>                                      |                                  |
| #+ Whooping crane<br><u>Grus americana</u>         | Rare migrant                     |
| + Sandhill crane<br><u>Grus canadensis</u>         | Unusual migrant                  |

Coots and Rails

Virginia rail  
Rallus limicola

Fairly common breeder

Sora rail  
Porzana carolina

Fairly common breeder

American coot  
Fulica americana

Abundant resident

Plovers

Killdeer  
Charadrius vociferus

Common resident

Shorebirds

Common snipe  
Capella gallinago

Fairly common resident

Long-billed curlew  
Numenius americanus

Unusual migrant

Spotted sandpiper  
Actitis macularia

Fairly common breeder

Solitary sandpiper  
Tringa solitaria

Fairly common migrant

Willet  
Catoptrophorus semipalmatus

Fairly common migrant

Greater yellowlegs  
Totanus melanoleucus

Fairly common migrant

Lesser yellowlegs  
Totanus flavipes

Fairly common migrant

Baird's sandpiper  
Erolia bairdii

Fairly common migrant

Least sandpiper  
Erolia minutilla

Common migrant

Long-billed dowitcher  
Limnodromus scolopaceus

Fairly common migrant

|   |                       |
|---|-----------------------|
| Western sandpiper<br><u>Ereunetes mauri</u>       | Fairly common migrant |
| Marbled godwit<br><u>Limosa fedoa</u>             | Fairly common migrant |
| Sanderling<br><u>Crocethia alba</u>               | Unusual migrant       |
| American avocet<br><u>Recurvirostra americana</u> | Fairly common migrant |
| Black-necked stilt<br><u>Himantopus mexicanus</u> | Unusual migrant       |
| <u>Phalaropes</u>                                 |                       |
| Wilson's phalarope<br><u>Steganopus tricolor</u>  | Abundant migrant      |
| Northern phalarope<br><u>Lobipes lobatus</u>      | Fairly common migrant |
| <u>Gulls and Terns</u>                            |                       |
| Herring gull<br><u>Larus argentatus</u>           | Migrant               |
| Franklin's gull<br><u>Larus pipixcan</u>          | Fairly common migrant |
| Bonaparte's gull<br><u>Larus philadelphia</u>     | Fairly common migrant |
| Forster's tern<br><u>Sterna forsteri</u>          | Possible breeder      |
| <u>Doves</u>                                      |                       |
| Rock dove<br><u>Columba livia</u>                 | Resident              |
| * Mourning dove<br><u>Zenaidura macroura</u>      | Abundant breeder      |



## Owls

Screech owl  
Otus asio

Fairly common breeder

Flammulated owl  
Otus flammeolus

Rare breeder

Great horned owl  
Bubo virginianus

Common resident

Pygmy owl  
Glaucidium gnoma

Unusual resident

Burrowing owl  
Speotyta cunicularia

Fairly common breeder

Long-eared owl  
Asio otus

Unusual winter visitor

Short-eared owl  
Asio flammeus

Unusual breeder

## Goatsuckers

Poor-will  
Phalaenoptilus nuttallii

Fairly common breeder

Nighthawk  
Chordeiles minor

Fairly common breeder

## Swifts

Black swift  
Cypseloides niger

Rare breeder

White-throated swift  
Aeronautes saxatalis

Common breeder

## Hummingbirds

Black chinned hummingbird  
Archilochus alexandri

Fairly common breeder

|   |                        |
|---|------------------------|
| Broad-tailed hummingbird<br><u>Selasphorus platycercus</u>    | Fairly common breeder  |
| Rufous hummingbird<br><u>Selasphorus rufus</u>                | Fairly common migrant  |
| Calliope hummingbird<br><u>Stellula calliope</u>              | Migrant                |
| Rufous hummingbird<br><u>Selasphorus rufus</u>                | Migrant                |
| <u>Kingfishers</u>  |                        |
| Belted kingfisher<br><u>Megasceryle alcyon</u>                | Fairly common resident |
| <u>Woodpeckers</u>  |                        |
| Flicker<br><u>Colaptes cafer</u>                              | Fairly common resident |
| Lewis woodpecker<br><u>Asyndesmus lewis</u>                   | Unusual resident       |
| Yellow-bellied sapsucker<br><u>Sphyrapicus varius</u>         | Fairly common breeder  |
| Williamson's sapsucker<br><u>Sphyrapicus thyroideus</u>       | Fairly common breeder  |
| Hairy woodpecker<br><u>Dendrocopos villosus</u>               | Fairly common resident |
| Downy woodpecker<br><u>Dendrocopos pubescens</u>              | Fairly common resident |
| Northern three-toed woodpecker<br><u>Picoides tridactylus</u> | Unusual breeder        |
| <u>Flycatchers</u>  |                        |
| Eastern kingbird<br><u>Tyrannus tyrannus</u>                  |                        |

\* Western kingbird  
Tyrannus verticalis

Ash-throated flycatcher  
Myiarchus cinerascens

Say's phoebe  
Sayornis saya

Dusky flycatcher  
Empidonax oberholseri

Western flycatcher  
Empidonax difficilis

Western wood pewee  
Contopus sordidulus

Olive-sided flycatcher  
Nuttallornis borealis

#### Horned Larks

Horned lark  
Eremophila alpestris

#### Swallows

Violet-green swallow  
Tachycineta thalassina

Tree swallow  
Iridoprocne bicolor

Bank swallow  
Riparia riparia

Rough-winged swallow  
Stelgidopteryx ruficollis

Barn swallow  
Hirundo rustica

Cliff swallow  
Petrochelidon pyrrhanota

Fairly common breeder

Fairly common breeder

Fairly common breeder

Fairly common breeder

Fairly common breeder

Fairly common breeder

Fairly common breeder

Common resident

Common breeder

Common breeder

Fairly common breeder

Fairly common breeder

Fairly common breeder

Abundant breeder

### Magpies, Crows, and Ravens

|  |                        |
|--|------------------------|
| Black-billed magpie<br><u>Pica pica</u>        | Common resident        |
| Common raven<br><u>Corvus corax</u>            | Fairly common resident |
| Common crow<br><u>Corvus brachyrhynchos</u>    | Fairly common resident |
| Pinyon jay<br><u>Gymnorhinus cyanocephalus</u> | Fairly common resident |

### Chickadees

|   |                        |
|---|------------------------|
| Black-capped chickadee<br><u>Parus atricapillus</u> | Fairly common resident |
|---|------------------------|

### Bushtits

|  |                  |
|--|------------------|
| Bushtit<br><u>Psaltirparus minimus</u> | Unusual resident |
|--|------------------|

### Nuthatches and Dippers

|  |                        |
|--|------------------------|
| White-breasted nuthatch<br><u>Sitta carolinensis</u> | Fairly common resident |
| Red-breasted nuthatch<br><u>Sitta canadensis</u>     | Unusual breeder        |
| Pygmy nuthatch<br><u>Sitta pygmaea</u>               | Fairly common resident |
| Brown creeper<br><u>Certhia familiaris</u>           | Migrant                |
| Dipper<br><u>Cinclus mexicanus</u>                   | Fairly common resident |

### Wrens

|  |                       |
|--|-----------------------|
| House wren<br><u>Troglodytes aedon</u> | Fairly common breeder |
|--|-----------------------|

Bewick's wren  
Thryomanes bewickii

Long-billed marsh wren  
Telmatodytes palustris

Canyon wren  
Catherpes mexicanus

Rock wren  
Salpinctes obsoletus

Mockingbirds and Thrashers

Mockingbird  
Mimus polyglottos

Gray catbird  
Dumetella carolinensis

Sage thrasher  
Oreoscoptes montanus

Thrushes, Solitaires, and Bluebirds

American robin  
Turdus migratorius

Hermit thrush  
Hylocichla guttata

Swainson's thrush  
Hylocichla ustulata

Veery  
Hylocichla fuscescens

Western bluebird  
Sialia mexicana

Mountain bluebird  
Sialia currucoides

Townsend's solitaire  
Myadestes townsendi

Common resident

Unusual resident

Fairly common breeder

Fairly common breeder

Unusual breeder

Fairly common breeder

Fairly common breeder

Abundant resident

Common breeder

Fairly common breeder

Unusual breeder

Unusual breeder

Common breeder

Fairly common resident

Gnatcatchers and Kinglets

Blue-gray gnatcatcher  
Polioptila caerulea

Migrant

Golden crown kinglet  
Regulus satrapa

Unusual breeder

Ruby crowned kinglet  
Regulus calendula

Fairly common migrant

Pipits

Water pipit  
Anthus spinoletta

Fairly common breeder

Waxwings

Cedar waxwing  
Bombycilla cedrorum

Unusual breeder

Shrikes

Northern shrike  
Lanius excubitor

Fairly common winter

Loggerhead shrike  
Lanius ludovicianus

Common resident

Starlings

Starling  
Sturnus vulgaris

Abundant resident

Vireos

Solitary vireo  
Vireo solitarius

Fairly common migrant

Warbling vireo  
Vireo gilvus

Fairly common breeder

## Warblers

Black and white warbler

Mniotilta varia

Unusual migrant

Tennessee warbler

Vermivora peregrina

Fairly common migrant

Orange-crowned warbler

Vermivora celata

Fairly common breeder

Nashville warbler

Vermivora ruficapilla

Unusual migrant

Virginia's warbler

Vermivora virginiae

Fairly common breeder

Yellow warbler

Dendroica petechia

Common breeder

Black-throated gray warbler

Dendroica nigrescens

Unusual migrant

Townsend's warbler

Dendroica townsendi

Unusual migrant

Northern waterthrush

Seiurus noveboracensis

Unusual migrant

MacGillivray's warbler

Oporornis tolmiei

Fairly common breeder

Common yellowthroat

Geothlypis trichas

Common breeder

Yellow-breasted chat

Icteria virens

Fairly common breeder

Wilson's warbler

Wilsonia pusilla

Fairly common breeder

American redstart

Setophaga ruticilla

Common migrant

## Weaver Finches

House sparrow

Passer domesticus

Abundant resident

Blackbirds and Orioles

Western meadowlark  
Sturnella neglecta

Common breeder

Yellow-headed blackbird  
Xanthocephalus xanthocephalus

Common breeder

Red-winged blackbird  
Agelaius phoeniceus

Abundant resident

\*Northern oriole (Bullock's) 1991  
Icterus galbula

Fairly common breeder

Brewer's blackbird  
Euphagus cyanocephalus

Fairly common breeder

Brown-headed cowbird  
Molothrus ater

Fairly common breeder

Tanagers

Western tanager  
Piranga ludoviciana

Fairly common breeder

Grosbeaks

Rose-breasted grosbeak  
Pheucticus ludovicianus

Unusual migrant

Black-headed grosbeak  
Pheucticus melanocephalus

Fairly common breeder

Blue grosbeak  
Guiraca caerulea

Fairly common breeder

Evening grosbeak  
Hesperiphona vespertina

Fairly common breeder

Finches

House finch  
Carpodacus mexicanus

Common resident



Pine siskin  
Spinus pinus

American goldfinch  
Spinus tristis

Lesser goldfinch  
Spinus psaltria

Towhees

Green-tailed towhee  
Chlorura chlorura

Rufous-sided towhee  
Pipilo erythrophthalmus

Sparrows

Lark bunting  
Calamospiza melanocorys

Black-throated sparrow  
Amphispiza bilineata

Savannah sparrow  
Passerculus sandwichensis

Vesper sparrow  
Pooecetes gramineus

Lark sparrow  
Chondestes grammacus

Dark-eyed junco  
Junco hyemalis

Gray-headed junco  
Junco caniceps

Tree sparrow  
Spizella arborea

Chipping sparrow  
Spizella passerina

Fairly common resident

Fairly common breeder

Fairly common breeder

Fairly common breeder

Fairly common resident

Fairly common migrant

Migrant

Fairly common breeder

Fairly common breeder

Fairly common breeder

Common winter

Fairly common resident

Fairly common winter

Fairly common breeder

Clay-colored sparrow  
Spizella pallida

Fairly common migrant

Brewer's sparrow  
Spizella breweri

Common breeder

Harris' sparrow  
Zonotrichia querula

Unusual migrant

White-crowned sparrow  
Zonotrichia leucophrys

Fairly common resident

White-throated sparrow  
Zonotrichia albicollis

Migrant

Fox sparrow  
Passerella iliaca

Migrant

Lincoln's sparrow  
Melospiza lincolni

Fairly common breeder

Song sparrow  
Melospiza melodia

Fairly common resident

Snow bunting  
Plectrophenax nivalis

Unknown status

|       | 1971 |        |   | 1972 |        |   | 1973 |        |   | 1974 |        |   | 1975 |        |   | 1976 |        |    | 1977 |        |   | 1978 |        |   | 1979 |        |   | 1980 |        |   |
|-------|------|--------|---|------|--------|---|------|--------|---|------|--------|---|------|--------|---|------|--------|----|------|--------|---|------|--------|---|------|--------|---|------|--------|---|
|       | SP   | NUMBER | M | SP   | NUMBER | M | SP   | NUMBER | M | SP   | NUMBER | M | SP   | NUMBER | M | SP   | NUMBER | M  | SP   | NUMBER | M | SP   | NUMBER | M | SP   | NUMBER | M | SP   | NUMBER | M |
| TO 2" |      |        |   |      |        |   |      |        |   |      |        |   |      |        |   |      |        |    | L    | 6012   | 6 |      |        |   |      |        |   |      |        |   |
|       |      |        |   |      |        |   |      |        |   |      |        |   |      |        |   |      |        |    |      | 18%#   |   |      |        |   |      |        |   |      |        |   |
| TOTAL |      |        |   |      |        |   |      |        |   |      |        |   |      |        |   |      |        |    |      |        |   |      |        |   |      |        |   |      |        |   |
| 2-4"  |      |        |   |      |        |   |      |        |   |      |        |   |      |        |   |      |        |    |      |        |   |      |        |   |      |        |   |      |        |   |
| TOTAL |      |        |   |      |        |   |      |        |   |      |        |   |      |        |   |      |        |    |      |        |   |      |        |   |      |        |   |      |        |   |
| 4-6"  |      |        |   |      |        |   |      |        |   |      |        |   |      |        |   | R    | 16500  | 11 |      |        |   | L    | 3000   | 9 |      |        |   |      |        |   |
|       |      |        |   |      |        |   |      |        |   |      |        |   |      |        |   |      | 797#   |    |      |        |   |      | 46.15# |   |      |        |   |      |        |   |
| TOTAL |      |        |   |      |        |   |      |        |   |      |        |   |      |        |   |      |        |    |      |        |   |      |        |   |      |        |   |      |        |   |
| 6"+   | R    | 1200   | 5 | R    | 1164   | 5 | R    | 1240   | 5 | R    | 1575   | 6 | R    | 1625   | 6 |      |        |    | R    | 1220   | 6 | R    | 875    | 6 | R    | 1975   | 7 | R    | 1699   | 7 |
|       | R    | 3425   | 6 | R    | 1180   | 6 | R    | 1285   | 6 |      |        |   |      |        |   |      |        |    | R    | 945    | 7 | R    | 700    | 7 |      |        |   |      |        |   |
|       | R    | 2400   | 8 | R    | 1332   | 7 | R    | 2328   | 7 |      |        |   |      |        |   |      |        |    |      |        |   |      |        |   |      |        |   |      |        |   |
| TOTAL |      |        |   |      |        |   |      |        |   |      |        |   |      |        |   |      |        |    |      |        |   |      |        |   |      |        |   |      |        |   |

# CATCH RECORD

|           |      |        |      |        |    |        |   |        |   |        |      |        |      |        |     |        |    |        |   |        |   |        |   |        |   |        |   |        |   |        |
|-----------|------|--------|------|--------|----|--------|---|--------|---|--------|------|--------|------|--------|-----|--------|----|--------|---|--------|---|--------|---|--------|---|--------|---|--------|---|--------|
| FM. CHKD. | 20   | 2      | 26   |        |    |        |   |        |   | 37     | 21   | 21     | 8    | 1      |     |        |    |        |   |        |   |        |   |        |   |        |   |        |   |        |
| HOURS     | 49   | 4      | 67   |        |    |        |   |        |   | 62     | 23   | 26     | 14   | 1      |     |        |    |        |   |        |   |        |   |        |   |        |   |        |   |        |
| CPM H     | 0.84 | 1.25   | 0.72 |        |    |        |   |        |   | 0.55   | 0.52 | 0.23   | 0.36 | 1      |     |        |    |        |   |        |   |        |   |        |   |        |   |        |   |        |
| TFC       | 41   | 5      | 48   |        |    |        |   |        |   | 34     | 12   | 6      | 5    | 0      |     |        |    |        |   |        |   |        |   |        |   |        |   |        |   |        |
| NR-FM     | 4    | -      | 3    |        |    |        |   |        |   | 6      | 1    | 2      | 0    | 0      |     |        |    |        |   |        |   |        |   |        |   |        |   |        |   |        |
| SPECIES   | %    | AV. S. | %    | AV. S. | %  | AV. S. | % | AV. S. | % | AV. S. | %    | AV. S. | %    | AV. S. | %   | AV. S. | %  | AV. S. | % | AV. S. | % | AV. S. | % | AV. S. | % | AV. S. | % | AV. S. | % | AV. S. |
| RB        | 100  | 10     | 80   | 10     | 88 | 11     |   |        |   | 71     | 10   | 72     | 9    | 50     | 8"  | 60     | 10 |        |   |        |   |        |   |        |   |        |   |        |   |        |
| L         |      |        | 30   | 9      | 12 | 15     |   |        |   | 29     | 12   | 8      | 14   | 50     | 10" | 20     | 9  |        |   |        |   |        |   |        |   |        |   |        |   |        |
| BRK       |      |        |      |        |    |        |   |        |   |        |      |        |      |        |     | 20     | 6  |        |   |        |   |        |   |        |   |        |   |        |   |        |

GUNNISON RIVER, NORTH FORK (Gunn R, C)

40509 Delta-Gunnison Cos.

1 10 20 30 40 50 60 70 80 90 100  
 TYPYST PLEASE NOTE - THIS SCALE CORRESPONDS TO TYPEWRITER (PICA) SCALE. START ALL TYPING AT SAME POINT ON SCALE. FOLD BACK OR REMOVE STUB AFTER TYPING.  
 KARDEX VISIBLE

SPERRY RAND CORPORATION

REMINGTON RAND  
 OFFICE SYSTEMS DIVISION

000-0000-00000  
 PRINTED IN U. S. A.

DOW FISH STOCKING RECORDS FOR THE  
 CONFLUENCE AREA

R= Rainbow trout L= Brown trout

APPENDIX VI

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